

## FROM FIELD AND STUDY

**Absence of the Pallid Cuckoo at Merredin, 1973.**—For the first time, over a period of observing them for 24 years, Pallid Cuckoos (*Cuculus pallidus*) failed to visit the district in the spring of 1973. None were seen by me or by other people who are familiar with this bird.

I kept a close watch each week in their usual haunts and also visited Nungarin and Southern Cross, but no birds were seen or heard calling.

During the previous spring, in 1972, there was an increase in the numbers of Pallid Cuckoos; they usually first appear just before mid-July. There were a small number of cuckoo chicks about my yard, apparently being cared for by Willy Wagtails.

I wonder how general was this absence of Pallid Cuckoos in the south of the State during 1973? May they have found more attractive feeding areas in the north because of the bountiful rains there?

—(Mrs.) M. B. MILLS, Merredin.

**Avian-Derived Phosphate from Inland Western Australia.**—Several recent collections of minerals from the Gascoyne and Murchison regions have yielded the aluminium phosphate variscite derived from biogenic phosphatisation. The specimens came from the tops of prominent hills at Pyramid Hill (20°42'S, 115°51'E), Yinnietharra Station, and the hematite outcrop at Wilgie Mia (26°56'S, 117°41'E), Weld Range and are considered to be of sub-recent to recent origin.

Both occurrences are of a buff to white, vughy, crystalline to compact variscite encrusting the base rock in layers up to three inches thick and filling crevices for some feet. Simpson (1932) described a much larger deposit at Ninghanboun Hills (29°12'S, 116°27'E) where a serpentinite was altered to phosphate of iron and aluminium. Similar occurrences have been recorded from near Mt. Magnet and Belele Station. Mawson and Cooke (1907) reported several occurrences in South Australia and described the material as 'paratocite', which may be a mixture or a previously described mineral.

Maritime guano deposits are usually derived from the excreta of large flocks of birds but the inland occurrences described here probably indicate the hunting roosts of much smaller populations. The larger deposits described by Simpson and Mawson *et al.*, are not compatible with the present day smaller bird populations.

In the past, the salt lakes and filled swamps near these deposits probably contained plentiful aquatic life and supported considerably larger bird colonies. Similar conclusions have been drawn from the fossil bird discoveries of J. W. Gregory, R. H. Tedford, A. H. Miller and others in Central Australia.

These phosphate deposits may be of some minor significance where they are associated with iron ore deposits. The maximum phosphorus level allowed for iron ore exported to Japan is 0.07%. However, the amount of variscite necessary to affect the large tonnages mined is unlikely to exist in most Western Australian iron ore districts.

## REFERENCES

- MAWSON, D. and COOKE, W. T., 1907. The Phosphate Minerals from Elder Rock. *Trans. Roy. Soc. South Australia*, 31:65-70.  
SIMPSON, E. S., 1932. Contributions to the Mineralogy of Western Australia, Series VII, Variscite (Redondite) and Leucophosphate (Sp. nov.), Ninghanboun Hills, S.W. *Jour. Roy. Soc. Western Australia*, 18:61-74.

—P. J. BRIDGE, Government Chemical Laboratories, Perth.